

REMARKS

This is a full and timely response to the non-final Official Action mailed **May 28, 2003** (Paper No. 21). Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

By the forgoing amendment, claims 8, 9, 14 and 24 are cancelled. New claims 26-54 have been added. Thus, claims 1, 2, 5-7, 10-13, 22, 23 and 25-54 are currently pending for the further consideration.

In the outstanding Office Action, the Examiner indicated the presence of allowable subject matter in claims 8, 9, 14 and 24. Applicant wishes to thank the Examiner for this indication of allowable subject matter. Accordingly, each of claims 8, 9, 14 and 24 has been cancelled and reintroduced in this amendment as an independent claim. Specifically, new independent claim 26 corresponds to canceled claim 8, new independent claim 33 corresponds to canceled claim 9, new independent claim 40 corresponds to canceled claim 14 and new independent claim 51 corresponds to canceled claim 24.

Consequently, all of the newly-added claims 26-53 is, or depends from, a claim indicated by the Examiner in the outstanding Office Action as containing allowable subject matter. Therefore, claims 26-53 claims should be in condition for immediate allowance. Consequently, examination and allowance of newly-added claims 26-53 is respectfully requested.

With regard to the prior art, independent claims 1 and 22, along with dependent claims 2, 5, 10 and 25, were rejected under 35 U.S.C. § 103(a) as unpatentable over the

combined teachings of U.S. Patent No. 6,131,023 to Matsuura (“Matsuura”), U.S. Patent No. 5,452,473 to Weiland et al. (“Weiland”), U.S. Patent No. 5,469,115 to Peterzell et al. (“Peterzell”) and U.S. Patent No. 6,285,960 to Fung et al. (“Fung”). The other dependent claims were rejected on this same combination of prior art references in further combination with a number of additional references. For at least the following reasons, these rejections are respectfully traversed.

Claim 1 recites:

A method for estimating input power in a cable modem device having a tuner and a modem, the modem having a receiver including an automatic gain control (AGC) circuit with an integrator outputting an accumulated error value, the method comprising the steps of:

inputting a plurality of calibration signals having known frequencies and input power levels into the receiver;

recording calibration data corresponding to each of said plurality of signals, said calibration data including an associated frequency, input power level and accumulated error value for each of said calibration signals;

generating a look-up table comprising an interpolated accumulated error value for each of a desired set of estimated input power levels and input frequencies using said calibration data; and

storing the look-up table in the modem.

New claim 54 recites similar subject matter.

It should be noted that claim 1 recites a modem having a receiver including *an AGC circuit with an integrator outputting an accumulated error value*. In contrast, the cited combination of prior art references fails to teach or suggest an integrator outputting an error value for an AGC circuit. Matsuura does not teach or suggest the use of any integrator.

Weiland only teaches a “power detector (214) [that] includes an integrator that integrates [*not an accumulated error, but*] the detected power with respect to a reference voltage.” (Col. 3, lines 26-29). None of the cited prior art references teach or suggest an AGC circuit that includes an integrator outputting an accumulated error value as claimed.

Because none of the prior art references cited teaches an integrator with an AGC circuit that outputs an accumulated error value for the AGC circuit, the combination of prior art references must also fail to teach or suggest “recording calibration data . . . said calibration data including an associated frequency, input power level and *accumulated error value* for each of said calibration signals. The combination of prior art must also fail to teach or suggest generating a look-up table comprising an interpolated *accumulated error value* for each of a desired set of estimated input power levels and input frequencies using said calibration data.”

Thus, the cited combination of prior art references fails to teach or suggest all the elements of claim 1. “To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).” M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). Consequently, the rejection of claim 1 and its dependent claims based on the cited combination of prior art references should be reconsidered and withdrawn.

Claim 22 recites:

A cable modem device, comprising:
a tuner that tunes to an input signal;
a modem coupled to the tuner, the modem having a receiver with an automatic gain control (AGC) circuit and a memory; and
a look-up table stored in the memory, the look-up table comprising an interpolated accumulated error value for said AGC circuit for each of a desired set of estimated input power levels and input frequencies;
wherein said look-up table is used to compute an estimated input power to the receiver using a current input frequency and an interpolated accumulated error value that is closest to a current accumulated error value.

As demonstrated above, the cited combination of prior art references fails to teach or suggest the use of, or an integrator for generating, an “accumulated error value for said AGC

“circuit.” Consequently, the prior art cited fails to teach or suggest “a look-up table stored in the memory [of a cable modem device], the look-up table comprising an interpolated accumulated error value for said AGC circuit for each of a desired set of estimated input power levels and input frequencies.” Additionally, the cited prior art fails to teach or suggest using the look-up table to “compute an estimated input power to the receiver using a current input frequency and an interpolated accumulated error value that is closest to a current accumulated error value.”

As noted above, “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).” M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). Consequently, the rejection of claim 22 and its dependent claims based on the cited combination of prior art references should be reconsidered and withdrawn.

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If any fees are owed in connection with this paper, which have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,



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